Renewable Energy Powers Renewable Energy Lab, Employees

GOLDEN, CO — July 9, 1997 — The U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) does more than just research renewable energy. It runs on it. And so do NREL employees. Site Operations Director John Shaffer today announced that the laboratory will purchase 4,000 kilowatt hours from Public Service Company of Colorado's (PSC) new Windsource program, enough to power NREL's 6,000 square foot Visitors Center. Through Windsource, PSC will generate electricity from wind-powered turbines near the Wyoming border.

"We believe that wind power is a highly viable energy source. So we are making an energy purchase that is consistent with that belief." said Shaffer. NREL is also using solar energy for auxiliary purposes such as powering streetlights, water pumps and the lab's new entrance sign. An experimental 12-kilowatt rooftop solar system also feeds electricity back into PSC's grid. But this is the first time the lab—or any DOE lab—has drawn, or used, renewable energy from a utility to power an entire building. More than 100 NREL employees have also decided to "walk their talk" by signing up for Windsource at home. One of the program's first participants, Senior Subcontract Auditor N. Les Hancock, didn't hesitate to sign up his all-electric house. "My participation, regardless of how small, creates demand for a product I believe in. If I don't help get it started, who's going to?" said Hancock. Senior Administrative Assistant Laura Davis said, "When technologies are first introduced, they may cost more. But as more people try renewable energy, prices will come down. Just look at computers and calculators."

NREL recently installed the largest wind turbine in Colorado as part of its mission to research wind and other renewable energy technologies to lower costs. In May, NREL researchers installed a 600 kilowatt Westinghouse turbine with a 142-foot rotor diameter. It is comparable in size to the turbines that will be used by PSC in Windsource. Now NREL researchers can study a utility-scale wind turbine in a variety of natural and simulated conditions. Costs are expected to come down as a result of technical improvements and increased knowledge.

NREL has performed research in close partnership with the wind industry for 20 years. This has steadily lowered costs to the point where wind energy is within reach of many consumers. The price of electricity from large scale utility-operated wind plants has dropped below 5 cents per kilowatt hour in some places, less than the cost of traditional electricity for much of the U.S. Current DOE/NREL research is expected to reduce costs below 2.5 - 3 cents per kilowatt hour in areas with good wind power.

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